

THERE WILL BE NO CHANGES IN SPECIFICATION, DIMENSIONS, OR MATERIALS UNLESS APPROVED BY THE ENGINEER RESPONSIBLE FOR THIS DRAWING.

THE DRAWINGS ARE PREPARED COOPERATIVELY BY THE NATURAL RESOURCE CONSERVATION SERVICE FOR THE NAMED LANDOWNER. CONSTRUCTION FOUND NOT IN ACCORDANCE WITH THESE DRAWINGS AND SPECIFICATIONS SHALL VIOLATE THE COOPERATIVE AGREEMENT AND ALL DRAWINGS, SPECIFICATIONS, AND QUANTITIES ESTIMATE SHALL IMMEDIATELY BE RETURNED TO THE LOCAL NRCS OFFICE.

THE CONTRACTOR/OWNER IS TO NOTIFY THE SOIL CONSERVATION DISTRICT AT LEAST 72 HOURS PRIOR TO CONSTRUCTION TO SCHEDULE A PRECONSTRUCTION MEETING, FACILITATE ANY SCHEDULING, LAYOUT, OR PRELIMINARY MOBILIZATION NECESSARY TO ENSURE PROPER CONSTRUCTION INSPECTION TO ENABLE APPROPRIATE CERTIFICATION OF THE PROJECT. A CONSERVATION TECHNICIAN SHALL VERIFY CUT/GRADE STAKES AT THE CONTRACTORS REQUEST.

THE OWNER/OPERATOR GIVES PERMISSION FOR MDE AND COE INSPECTION.

IT IS THE LANDOWNER'S RESPONSIBILITY TO OBTAIN ALL COUNTY, STATE, AND FEDERAL PERMITS THAT MAY BE NEEDED, AND TO MAINTAIN THIS STRUCTURE AND RELATED REGULATIONS.

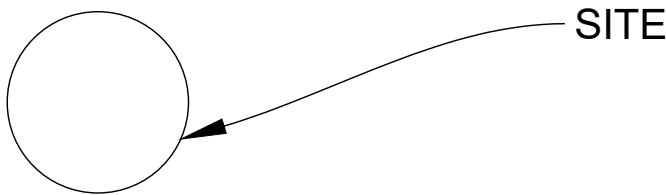
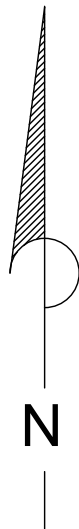
ALL EXCAVATION AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MARYLAND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (MOSHA) STANDARDS AS SET FORTH IN THE LATEST VERSION OF THE CODE OF MARYLAND REGULATIONS.



Know what's below.  
Call before you dig.

"The Soil Conservation District makes no representation as to the existence or Non-existence of any utilities at the construction site. Shown on these construction drawings are those utilities which have been identified. It is the responsibility of the landowners or operators and contractors to assure themselves that no hazard exists or damage will occur to utilities"

Producers are responsible for securing grading, building, electrical, and plumbing permits to install the required facilities and for properly managing the facility.



SITE

CRITICAL INSPECTION ITEMS - (Roofed Waste Storage Facility and/or Covered Feeding Area)  
3/20/15

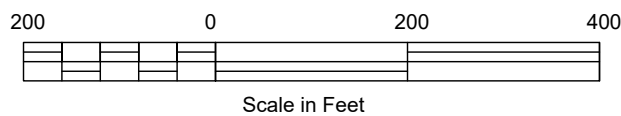
- The landowner will arrange for a pre-construction meeting between the contractor, NRCS and landowner to review the plans, standards and specifications prior to the start of construction.
- There will be no changes in specifications, dimensions, or materials unless approved by the engineer responsible for this drawing.
- The drawings are prepared cooperatively by the Natural Resources Conservation Service for named owner/operator. Construction found not in accordance with these drawings and specifications shall violate the cooperative agreement and all drawings, specifications, and Quantities Estimate shall immediately be returned to the local NRCS office.
- The following is a list of items that must be inspected by the Technician-in-Charge. If cost share is involved, payment may be forfeited if the Technician-in-Charge does not inspect all of the below:
  - Preconstruction Meeting  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_
  - Verify layouts:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_
  - Verify all subgrades:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_
  - Verify all subgrade materials CR-6 etc:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_
  - Verify reinforcing steel grade, size and placement:  
Footings:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Walls and/or curbs:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Floor:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_
  - Inspect all concrete in accordance with specifications:  
Footings:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Walls and/or curbs:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Full dimension wall ties:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Floor:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_
  - Proper curing of concrete:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_
  - Patching wall ties, holes and honeycombing:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_
  - Roof inspection in accordance with plans:  
Posts size, material and installation:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Preservative treatment or use code:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Anchors or embedment installation:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Header size, material and installation:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Hardware size, spacing, and type:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Knee brace (post to truss) size and material:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Hardware size, spacing, and type:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Y brace (post to header) size and material:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Hardware size, spacing, and type:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Hurricane straps:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Received/reviewed truss design sheet:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Purlins material and installation:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Hardware size, spacing, and type:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Roofing, material and installation:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Hardware size, spacing, and type:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_
  - Subsurface Drainage (if applicable)  
Trench grade:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Drain tubing material:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Stone envelope:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Backfill placement:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Proper outlet and rodent guard:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Backfill placement and compaction:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Signs in Place (Made of all-weather material):  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
All disturbed areas seeded and mulched:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_  
Other items shown on the plans:  
Date: \_\_\_\_\_ Initials: \_\_\_\_\_

DESIGN NOTE:

A site-specific design, in addition to the pre-qualified drawing is required. The site-specific design shall include a location map, plan view, dimensions, soil conditions, high water table, drainage components, and construction specifications needed to complete the project.

REVISED 4/1/2019

LOCATION MAP



USER TO ENTER SHEET NAMES

- | SHEET  | TITLE                                 |
|--------|---------------------------------------|
| 2..... | Plan view sheet/Building view details |
| 3..... | Building pad details/Framing details  |

AS-BUILT STATEMENT

THE CONSERVATION PRACTICE(S) MEETS OR EXCEEDS NRCS STANDARDS AND SPECIFICATIONS

INSPECTED BY SIGNATURE DATE

CONSTRUCTION APPROVAL SIGNATURE DATE

VERIFIED DISTRICT CONSERVATIONIST SIGNATURE DATE

AS BUILT CONTRACT ITEMS:

PRACTICE	Reportable Amount	Contract Amount
313 Waste Storage Facility		
367 Roofs and Covers		
561 Heavy Use Area		

USER TO ENTER PRACTICES

OWNER/CONTRACTOR STATEMENT

I CERTIFY THAT THIS DESIGN HAS BEEN EXPLAINED TO ME BY A REPRESENTATIVE OF THE COUNTY SOIL CONSERVATION DISTRICT, AND I UNDERSTAND THE CONTENTS, ALL CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND SPECIFICATIONS, I FURTHER UNDERSTAND THAT ALL CONSTRUCTION WILL BE UNDER THE INSPECTION OF THIS OFFICE.

OWNER/OPERATOR SIGNATURE DATE

CONTRACTOR'S SIGNATURE DATE

All disturbed areas to be stabilized within 7 days of completion, using the following recommendations.

Seeding Recommendations

Tall Fescue	65 lb/ac
Perennial Ryegrass or	5 lb/ac
Redtop (tolerates moist sites)	2 lb/ac
White Clover	5 lb/ac
20-40-40 Fertilizer	500 lb/ac
Ground lime 50% oxides	3 tons /ac
Straw Mulch	2 tons/ac

Dates listed are for plant hardiness Zone 6B, dates will need to be changed for other zones.

Seeding Dates

March 1 thru May 15  
August 1 thru October 1

It is the landowner responsibility to obtain All County, State, and Federal permits that may be needed, and to maintain this structure and those regulations.

USER TO ENTER SEEDING INFO

MATERIALS LIST

\* For bidding purposes only



SIGN REQUIRED FOR ALL MANURE STACKING STRUCTURES.

PLACE ONE SIGN AT EACH ENTRANCE/ACCESS POINT.

SIGN TO BE MADE OF DURABLE MATERIAL (PLASTIC/ALUMINUM OR EQUAL) MINIMUM SIZE 10"W X 14"H

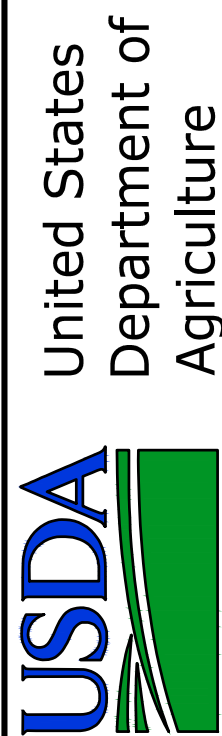
Date  
Designed  
Drawn  
Checked  
Approved

LANDOWNER - SITE NAME  
313 POULTY WASATE STORAGE STRUCTURE 40FT WIDE

COUNTY Soil Conservation District

JOB CLASS #

TRACT #



Natural Resources Conservation Service

File Name

MD\_0021\_PWSS(40FT).dwg

Drawing No.  
MD\_0021

Sheet 1 of 3



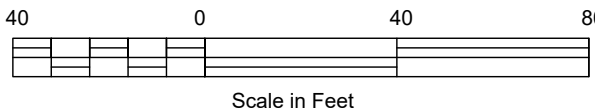


\*USER TO INSERT TOPO SURVEY\*

DESIGNER NOTE:

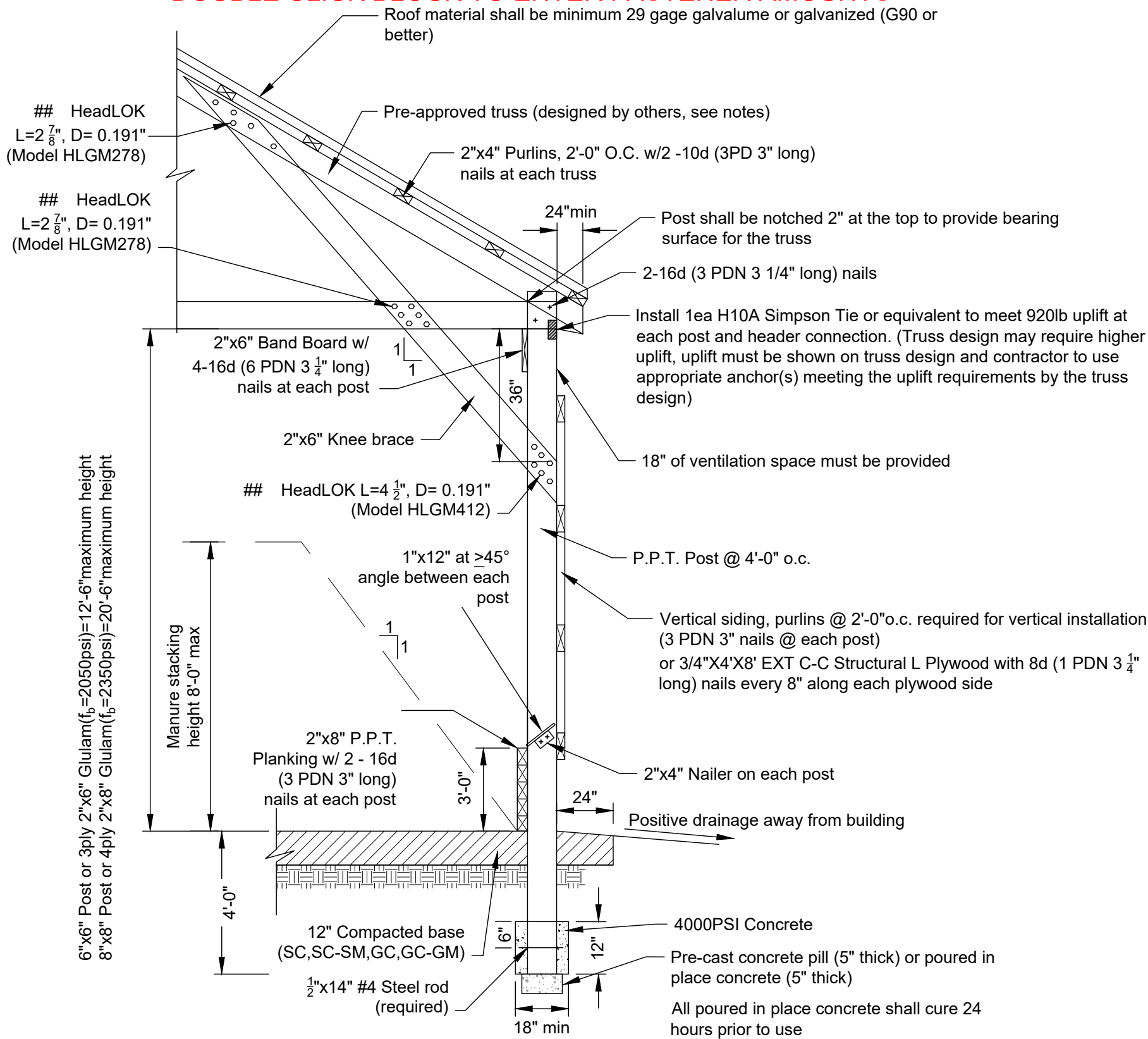
A SITE-SPECIFIC DESIGN IS REQUIRED AND SHALL INCLUDE A LOCATION MAP, PLAN VIEW, DIMENSIONS, SOIL CONDITIONS, HIGH WATER TABLE, DRAINAGE COMPONENTS, AND CONSTRUCTION SPECIFICATIONS NEEDED TO COMPLETE THE PROJECT.

PLAN MAP



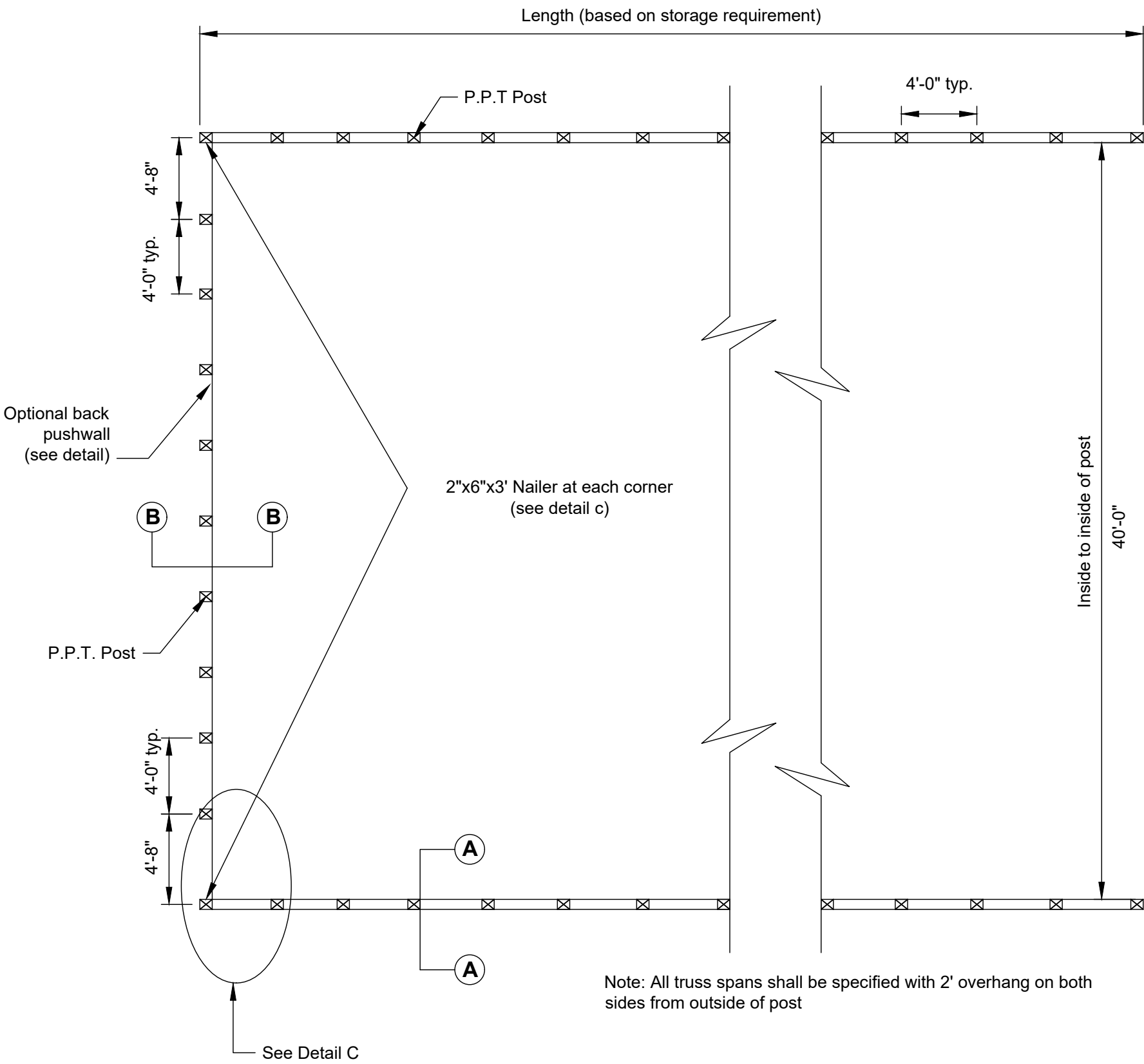
\*USER TO ENTER SCALE\*

\*DOUBLE CLICK BLOCK TO ENTER FASTENER AMOUNTS



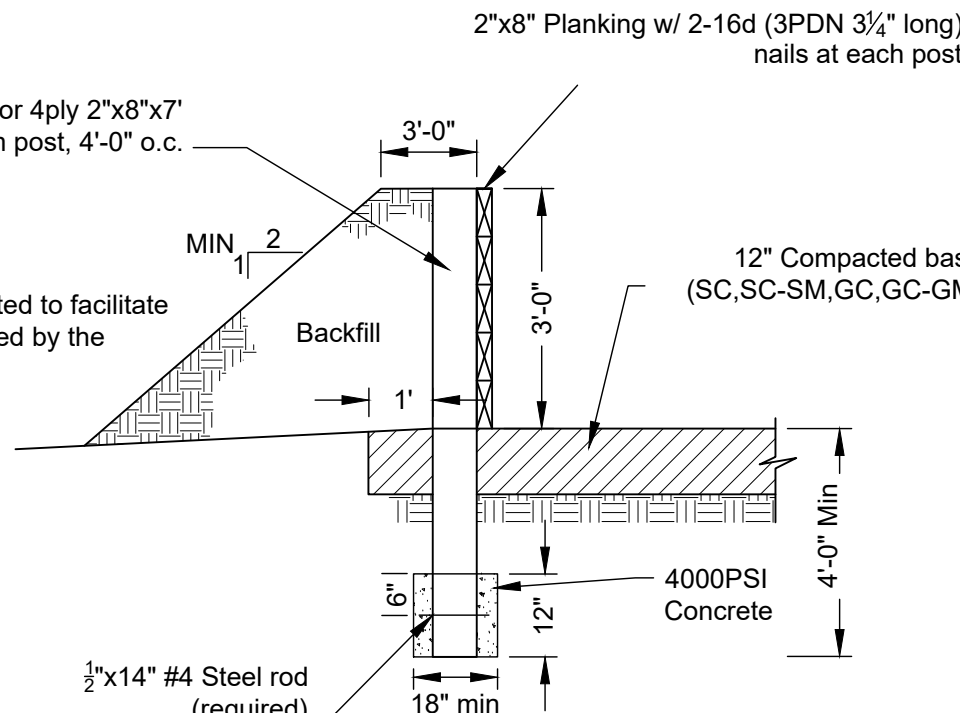
A-A Section not to scale

\*DOUBLE CLICK BLOCK TO ENTER LENGTH OF STRUCTURE

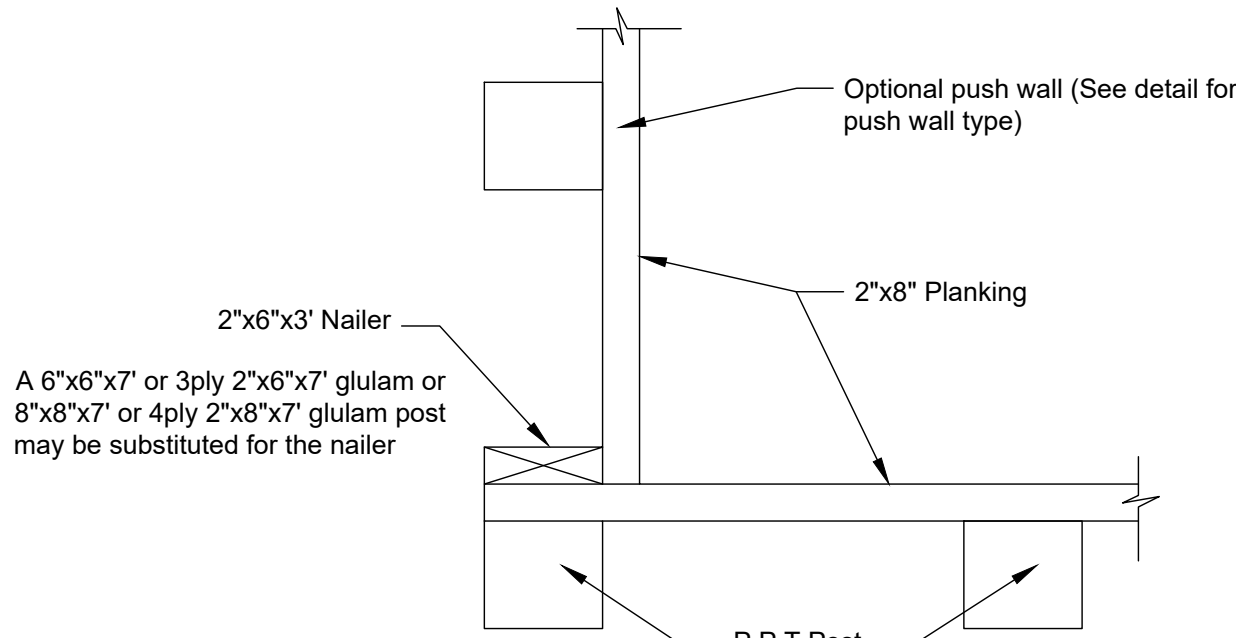


PLAN VIEW NOT TO SCALE

Note: The end wall may be eliminated to facilitate loading and unloading as determined by the engineer



B-B Backwall Elevation Optional Backwall

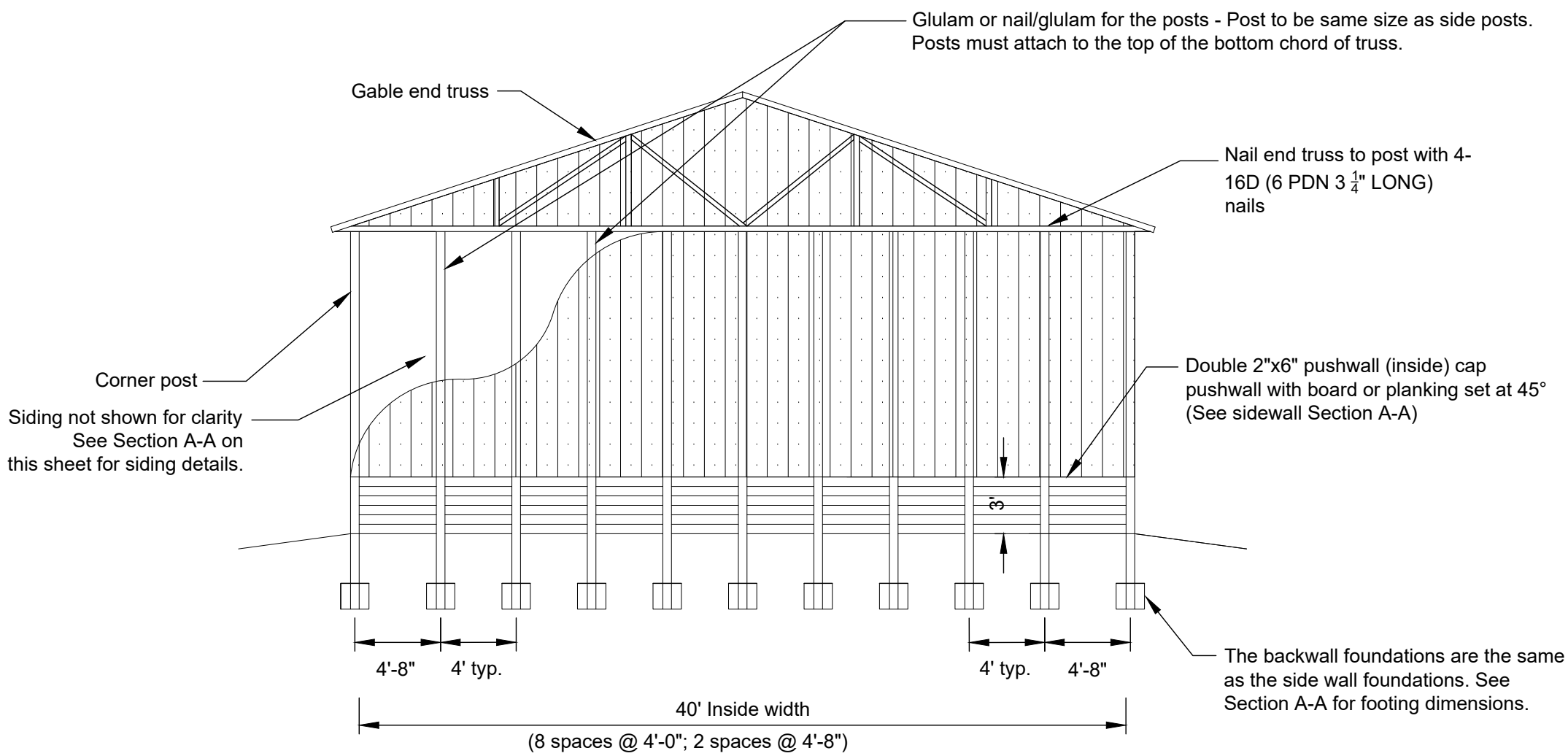


OPEN BACKWALL DETAIL C Not to scale

All Glulam post must meet the following specifications:  
3ply 2"x6" (5.25"x4.0625") Glulam  $f_b=2050\text{psi}$   
4ply 2"x8" (7.0"x5.375") Glulam  $f_b=2350\text{psi}$

Roofing construction note:  
Roofing material must be stored properly in accordance with the manufacturer's recommendations. Roofing material must be covered if it is stored outside to prevent premature deterioration.

Aluminum roofing may be used in lieu of steel. Roof shall be designed considering expansion and contraction and compatibility with other metals. The aluminum roofing shall have a minimum thickness of 0.018 inches and a maximum sheet length of 16 feet. Joints shall have sufficient overlap and fastened with stainless steel screws. The fastener holes shall be drilled and slotted and neoprene washers used.



B-B Backwall Elevation Optional Full Backwall

LANDOWNER - SITE NAME  
313 POULTRY WASATE STORAGE STRUCTURE 40FT WIDE  
COUNTY Soil Conservation District



File Name  
MD\_0021\_PWSS(40FT).dwg

Drawing No.  
MD\_0021

Sheet 2 of 3

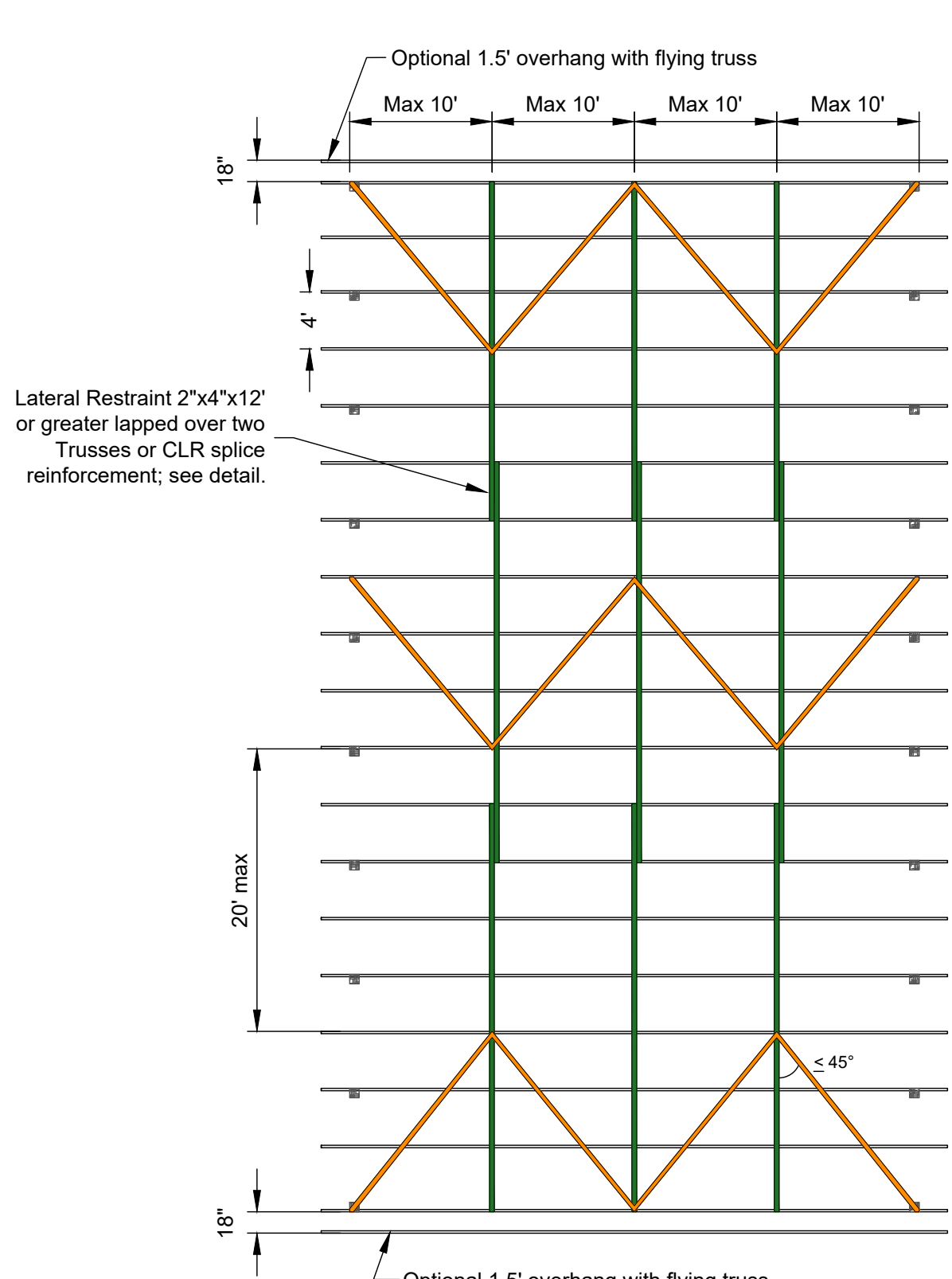
Date  
Designed  
Drawn  
Checked  
Approved

Maryland

JOB CLASS #

TRACT #





Truss Bracing for 4' Truss Spacing

- Truss
- Bottom Chord Lateral (2"x4")
- Bottom Chord Diagonal Braces (2"x4") [permanent]
- Top Chord Diagonal Braces (2"x4") [temporary]\*
- Post
- Not Shown
- Purlin (2"x4") - 24" o.c. Top Chord

\*Note: Top Chord Diagonal bracing to follow the same "V" or "W" pattern as Bottom Chord Diagonal bracing (e.g. angles less than or equal to 45° to lateral restraint)

Bracing Notes:  
The truss design sheet from the manufacturer will show the location of the lateral bracing for the truss bottom chord and web members.

Refer to BCSI (Building Component Safety Information) Guide B10 for truss installation, restraint, temporary bracing and permanent bracing requirements for trusses greater than 2' on center and up to 81' in length.

Nail all connections with a minimum 2-16d (0.135x3.5") PBNs.

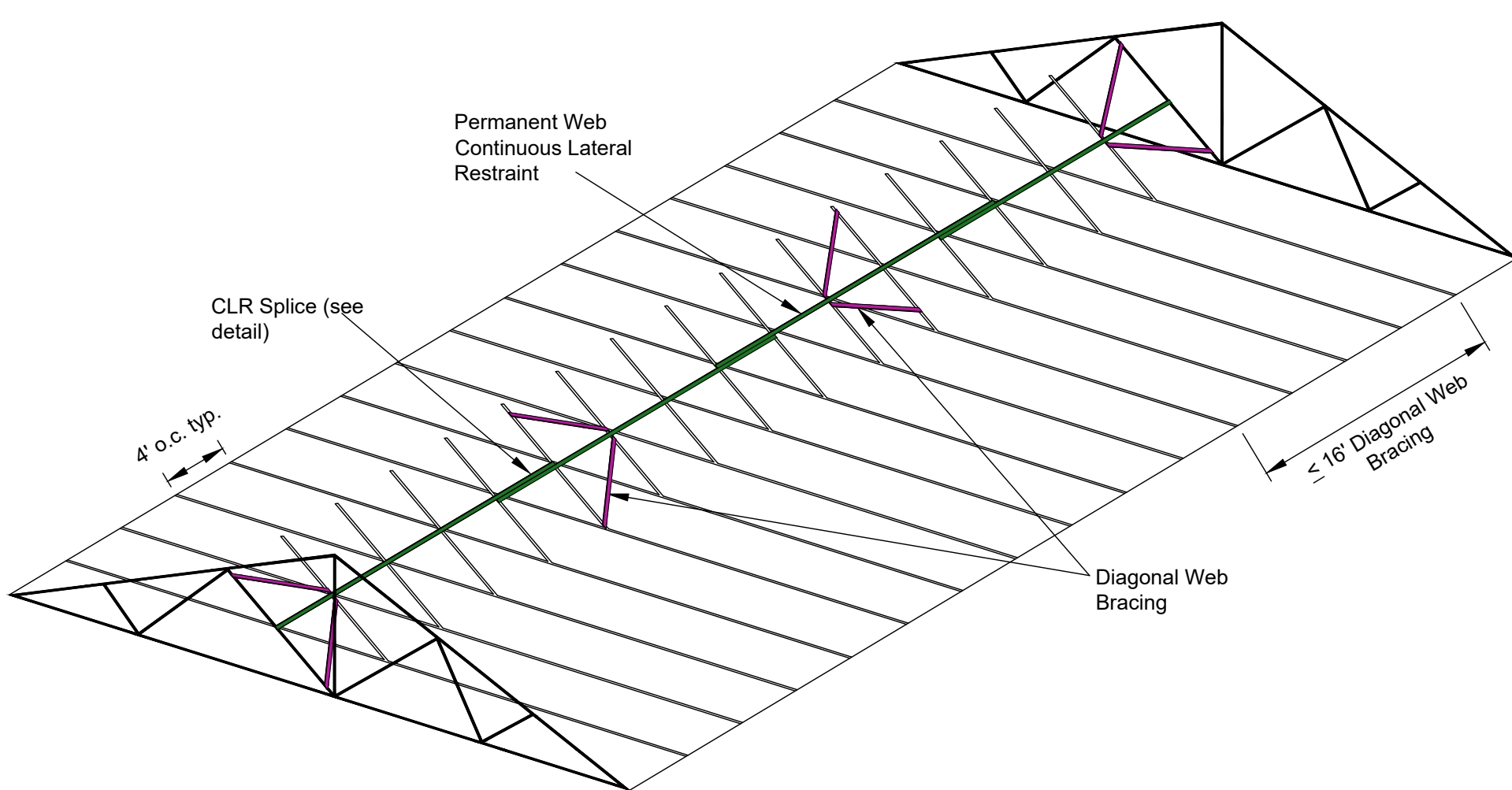
Temporary top chord diagonal bracing to be installed at angles less than or equal to 45° to lateral restraint (purlins). If spliced, diagonal braces lap two rows of top chord lateral restraint. Use two nails at each diagonal brace-to-purlin connection. Repeat at intervals of 20' or less along the length of the building; see left. Permanent bracing for the top chord can be achieved by attaching structural sheathing to the truss purlins and may take the place of temporary top chord bracing during construction.

Permanent bottom chord diagonal bracing to be installed at angles less than or equal to 45° to lateral restraint (CLR) and shall repeat at intervals of 20' or less along the length of the building.

Web members that require continuous lateral bracing also require diagonal bracing and shall be applied by one of the illustrated methods; see right. Repeat at intervals no greater than 16'.

Bottom chord and web member lateral restraint braces shall be applied to two trusses or shall be spliced with a 2' scab block; see below.

Truss manufacturer's bracing recommendations take precedence over those shown above. Use the above bracing if truss manufacturer does not provide continuous lateral bracing details.



#### TRUSS DESIGN NOTES

Truss shown on the drawing is for illustration purposes only. Trusses shall be designed and approved by a licensed engineer. Truss manufacturer shall furnish all drawings for bracing required on trusses. Scissors trusses are acceptable with a level bearing plate.

**Truss Design:**  
Span: (Specify span to outside of post)  
Slope: 5 in 12  
Truss Spacing: 4' 0" on center  
Overhang: 2'-0"

Gable end trusses shall be sheathed

**Truss Loadings: MINIMUM LOADINGS ARE SHOWN BELOW (COUNTY MAY REQUIRE HIGHER LOADINGS)**  
Top Chord Live Load, see listing below, Dead Load 5 psf  
Bottom Chord Live Load 0 psf, Dead Load 5 psf

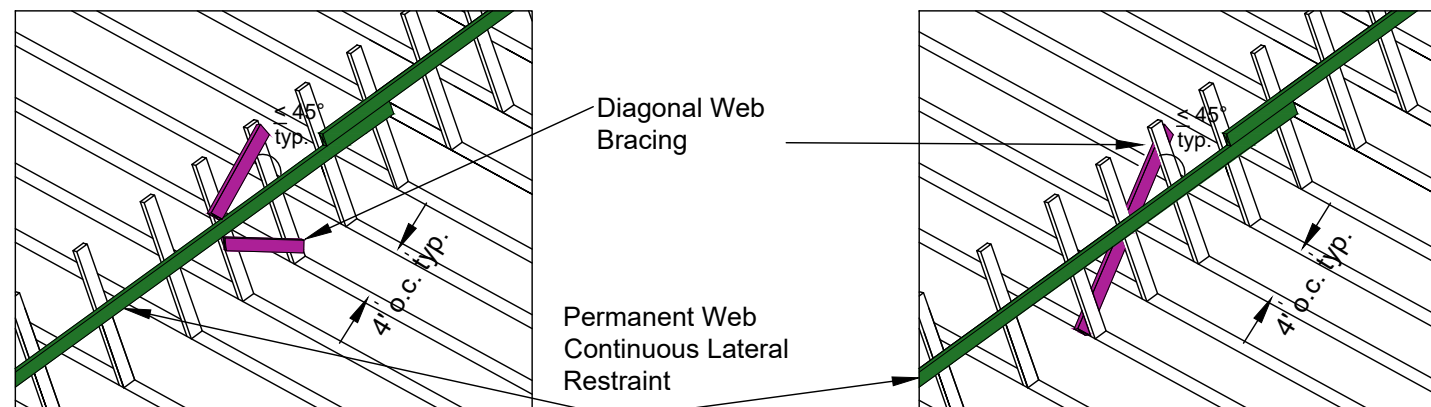
Garrett and Allegany Counties:  
Top Chord Live Load 40 psf, Dead Load 5 psf

Washington County:  
Top Chord Live Load 35 psf, Dead Load 5 psf

Baltimore, Carroll, Cecil, Frederick, Harford, Howard, Montgomery and Prince George's Counties:  
Top Chord Live Load 30 psf, Dead Load 5 psf

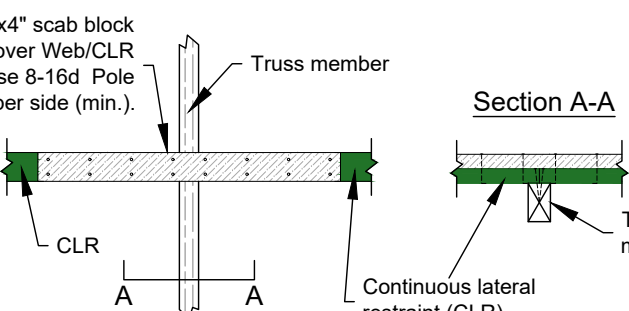
Anne Arundel, Calvert, Caroline, Charles, Kent, Queen Anne's, St. Mary's and Talbot Counties:  
Top Chord Live Load 25 psf, Dead Load 5 psf

Dorchester, Somerset, Wicomico, and Worcester Counties:  
Top Chord Live Load 20 psf, Dead Load 5 psf

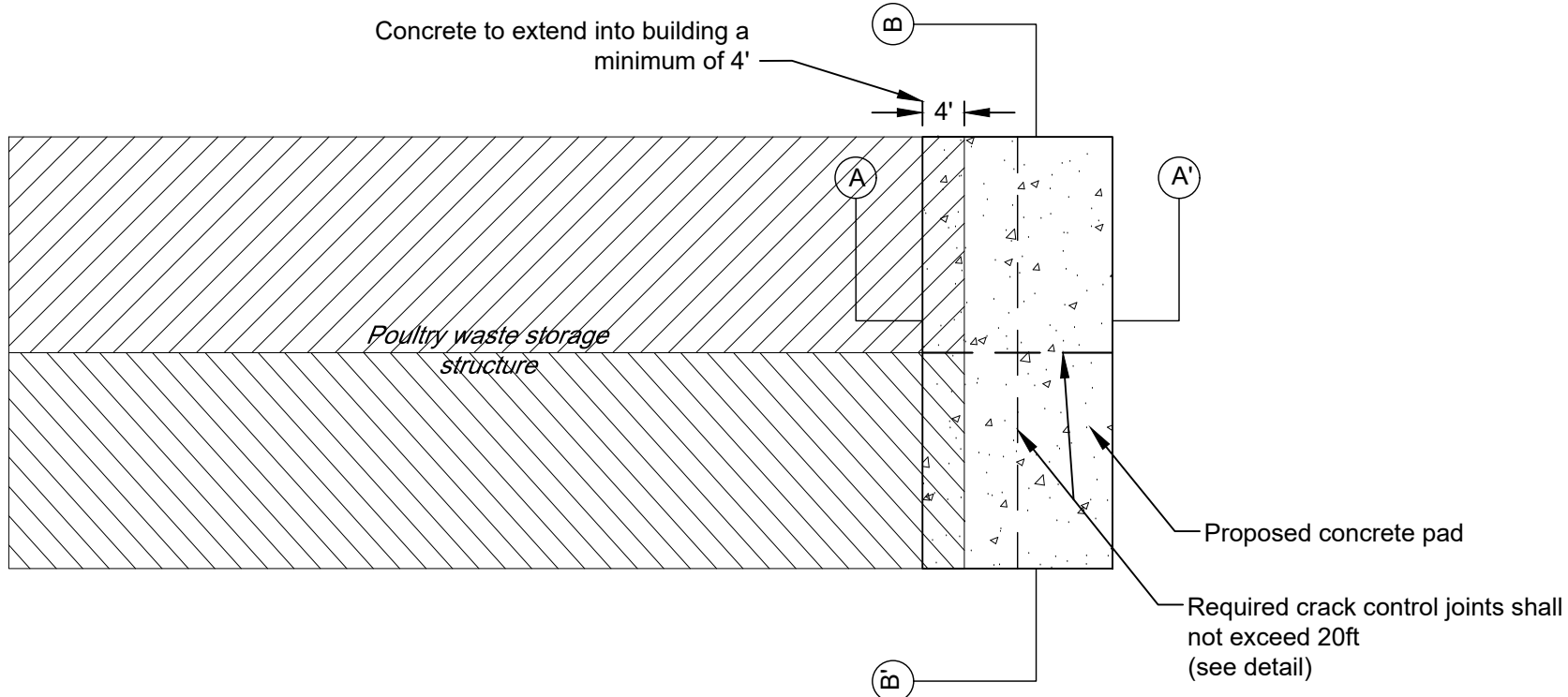


Web Member Diagonal Bracing

Note: All drawings are not to scale

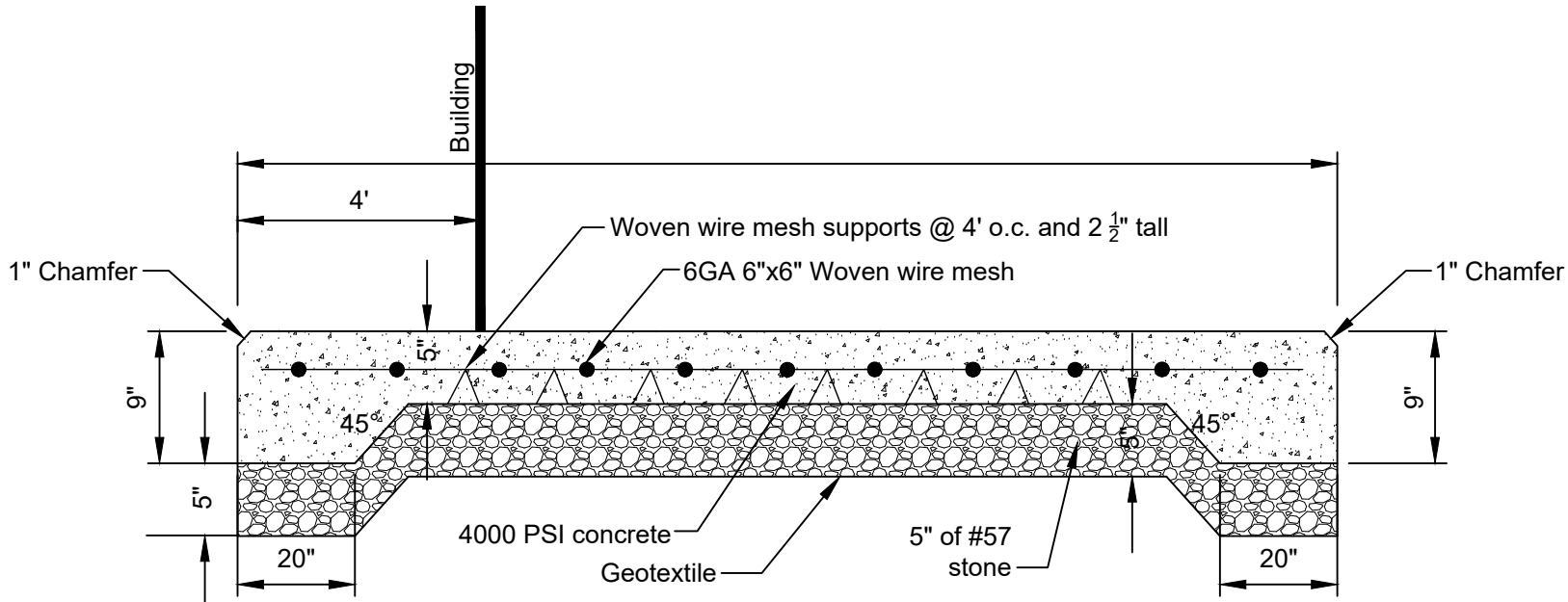


CLR Splice Reinforcement



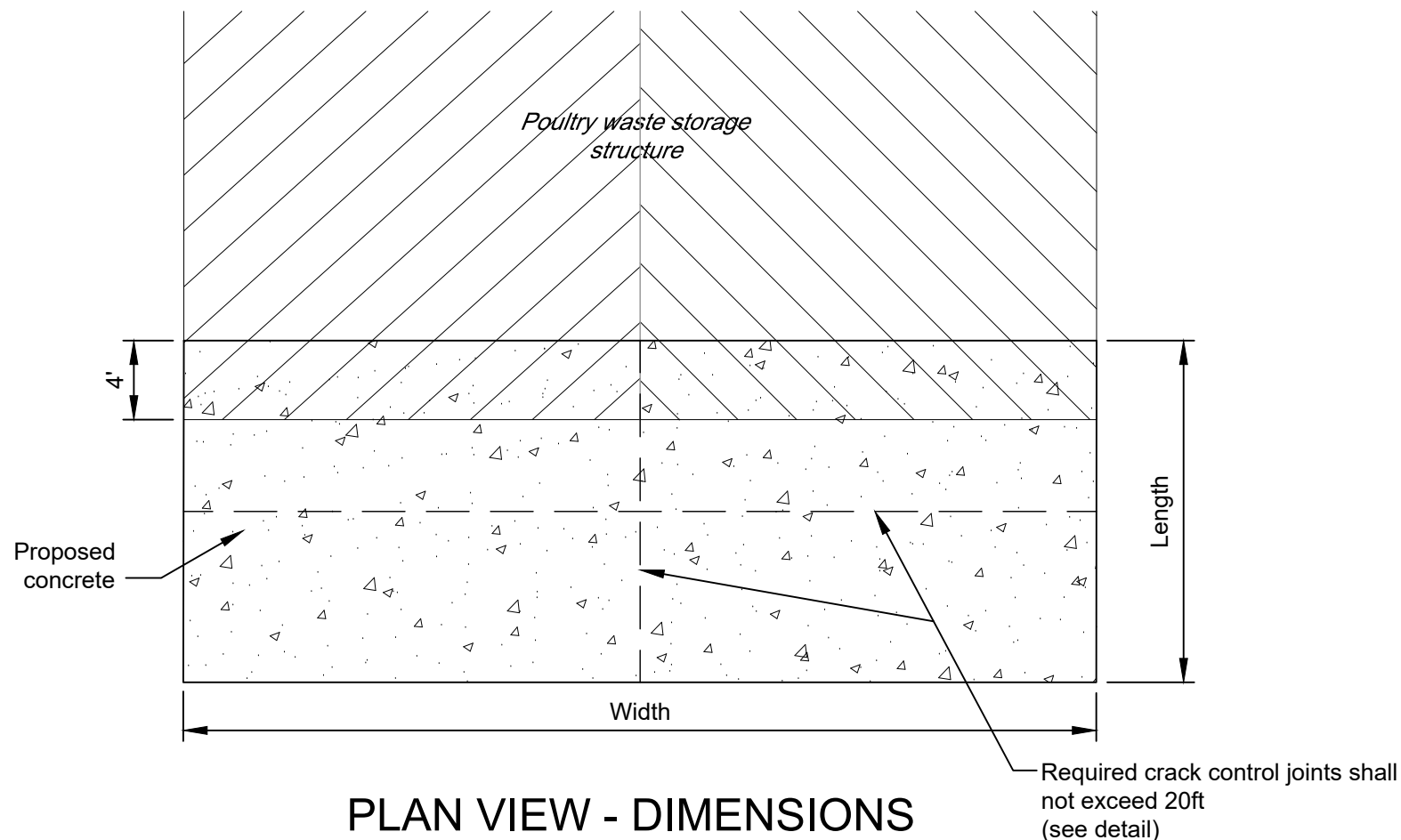
PLAN VIEW  
NOT TO SCALE

\*DOUBLE CLICK BLOCK TO ENTER LENGTH OF PAD



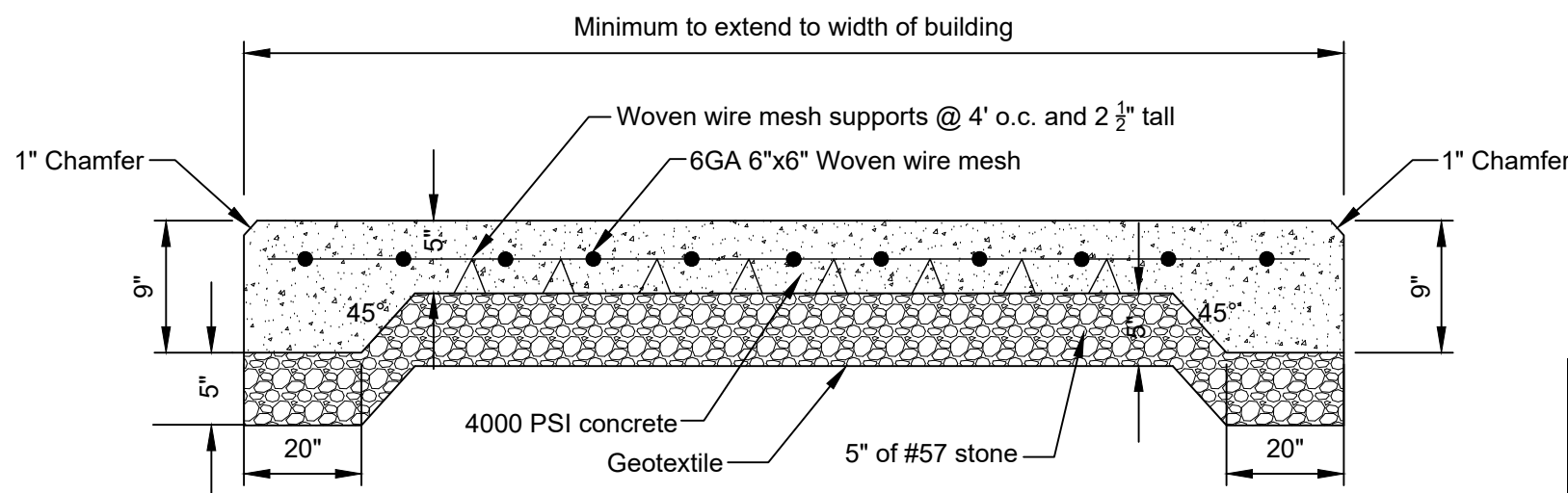
SECTION A - A'  
NOT TO SCALE

\*DOUBLE CLICK BLOCK TO ENTER LENGTH AND WIDTH OF PAD



PLAN VIEW - DIMENSIONS  
NOT TO SCALE

\*DOUBLE CLICK BLOCK TO ENTER WIDTH OF PAD



SECTION B - B'  
NOT TO SCALE

Note: Geotextile to meet the following Maryland State Highway Administration requirements:					
Maryland Application Class	Type of Geotextile	Grab Strength Lb D 4632	Puncture Strength Lb D 4833	Permittivity Sec 1	Trapezoid Tear Strength Lb D 4533
SE	NONWOVEN	200	80	0.2	80
	WOVEN	250	90	0.2	90

#### TIMBER CONSTRUCTION NOTES

8/2017

1. All lumber below the fascia board level shall be preservative pressure treated Southern Yellow Pine, No.2 KD, 19% m.c. or better. All other lumber may be either Southern Yellow Pine or Spruce-Pine-Fir No. 2 or better unless specified otherwise. Protection such as clear preservative, paint, or pressure treatment shall be required for the plywood. Timber shall be pressure treated in accordance with the chart below.

Use Codes for Treated Building Materials	
Use Code for Ground or Manure Contact Lumber	UC4B
Use Code for all other Treated Lumber	UC4A

2. Glulam posts used as columns shall be CCA pressure treated to a 0.60 retention factor a minimum 12" above the ground line on the ground contact end.

3. All metal hardware and nails shall be stainless steel or hot-dip galvanized (HDG). Stainless steel shall be grade types 304 or 316. Hot dipped galvanized fasteners shall conform to ASTM A 153 and hot-dip galvanized connectors shall conform to ASTM Standard A 653 (Class G-185).

All fasteners, connectors, and any other metal contacting ACZA, ACQ or CA treated wood shall be stainless steel.

There may be additional products (other than stainless steel and hot-dip galvanized) which are suitable for use in treated wood except for the types listed in the note above. These screws and connectors have proprietary anti-corrosion technologies and are acceptable for treated wood exposed to moisture when used according to the hardware manufacturer's recommendations and **must be clearly marked "for use with" the type of treated wood being used.**

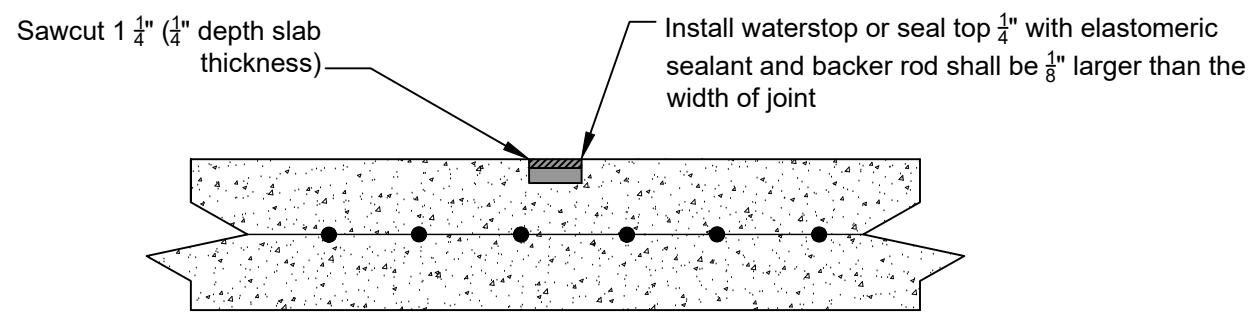
4. All structural nail connections must be nailed with twisted or ring shank nails, unless otherwise as shown.

5. Power driven nails (PDN) shall be 0.131 Diameter or larger, deformed shank, and helical (spiral) or annular (ring) type. The number and length of 0.131 diameter power driven nails is specified in parenthesis next to each connection. Pressure shall be applied to wood members to insure tight joints when using power driven nails. The head of the nail may not be countersunk more than 1/16" into the wood.

#### CONCRETE CONSTRUCTION SPECIFICATIONS FLAT WORK ONLY – POULTRY HUA Revised 07/17

- All materials and construction shall be in accordance with applicable NRCS Practice Standards and ACI-308.
- Any changes in the plans or specifications must be approved by the design approver prior to being made. Changes are to be reviewed by the landowner for concurrence.
- Concrete shall have Type IA or IIA cement, 28-day compressive strength of 4,000 psi, 5% air entrainment and a slump of 3 to 5 inches. Air entrainment admixtures shall conform to ASTM C260.
- Reinforcing steel shall conform to ASTM A615, Grade 60 steel. All reinforcing material shall be free of dirt, loose rust, scale, oil, paint or other coatings. The steel shall be accurately placed into position, as shown on the plans, and securely restrained and blocked into position prior to placement of concrete. Insertion of steel into fresh concrete is not permitted. Reinforcement steel shall have a minimum of 2 inches of concrete cover against all forms and 3 inches against soil, unless otherwise shown on the plans. All other reinforcement steel splices shall overlap a minimum of 18 inches. Welded wire mesh shall conform to ASTM A1064 and overlap a minimum of 6 inches. The welding of reinforcing steel is not permitted.
- Waterstop will be used as shown on the plans and at all cold and construction joints. The type of waterstop will be approved by the field technician prior to use.
- Plasticizing or plasticizing and retarding admixtures may be used and shall conform to ASTM C1017 or ASTM C484 Types F or G.
- Concrete shall be delivered to the site and discharged completely into the forms within 90 minutes after the truck leaves the plant. This time shall be reduced to 45 minutes when the atmospheric temperature is over 90° F. The concrete shall be maintained at a temperature below 90° F during mixing, conveying and placement. Set retarding admixtures may be used to increase mixing time. Water reducing and/or retarding admixtures shall conform to ASTM C484 Types A, B, D, F or G.
- Concrete shall not be placed when the daily minimum atmospheric temperature is less than 40° F unless facilities are provided to prevent the concrete from freezing. The concrete shall be protected from freezing for a minimum of 7 days or the concrete shall be kept at a temperature of 55° F for a minimum of 3 days. Accelerating or water-reducing and accelerating admixtures shall be noncorrosive and conform to the requirements of ASTM C484, Types C and E. Cold weather concreting procedures shall conform to ACI-308.
- Concrete shall be kept continuously moist for the curing period after the placement of the concrete. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period. Curing compounds may be used in lieu of the application of moisture. Curing compounds shall conform to ASTM C309, Type 2.
- Defective concrete, honeycombed areas, voids left by the removal of tie rods, ridges on all concrete surfaces permanently exposed to view or exposed to water, shall be repaired immediately after the removal of forms. All voids shall be reamed and completely filled with quikrete, non-shrink hydraulic cement.
- Concrete surfaces shall be screeded, floated, troweled and broom finished unless otherwise approved.
- Fill material under concrete shall be accomplished by placing maximum 8-inch lifts (before compaction). The lifts shall be compacted by the transversing of the entire surface by not less than one track of the equipment or by a minimum of four complete passes with a sheepfoot, vibratory, or rubber tire roller. Compaction around structure (i.e. around pipes, adjacent to walls, etc.) shall be accomplished by placing fill in maximum 4-inch lifts (before compaction) and compacting by means of hand tampers or other manually directed compaction equipment.

The technician shall determine if the moisture content is suitable for fill placement. The contractor shall make adjustments as directed by the technician. The method of compaction shall be approved prior to placement of fill material.



CRACK CONTROL DETAIL  
NOT TO SCALE

Date	Designed	Drawn	Checked	Approved
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LANDOWNER – SITE NAME  
313 POULTRY WASATE STORAGE STRUCTURE 40FT WIDE  
COUNTY Soil Conservation District  
JOB CLASS #

United States  
Department of  
Agriculture  
USDA  
Natural Resources  
Conservation Service

File Name  
MD\_0021\_PWSS(40FT).dwg

Drawing No.  
MD\_0021

Sheet 3 of 3